

MEXICALI



Nature-based and community-based solutions to improve New River water quality

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The Mexicali Fluye project addresses:

- **Water pollution associated with agricultural return flows, treated and untreated industrial and domestic waste**
- Air pollution from trash burning
- Human health risks associated with vector transmitted diseases
- Unpleasant urban landscape

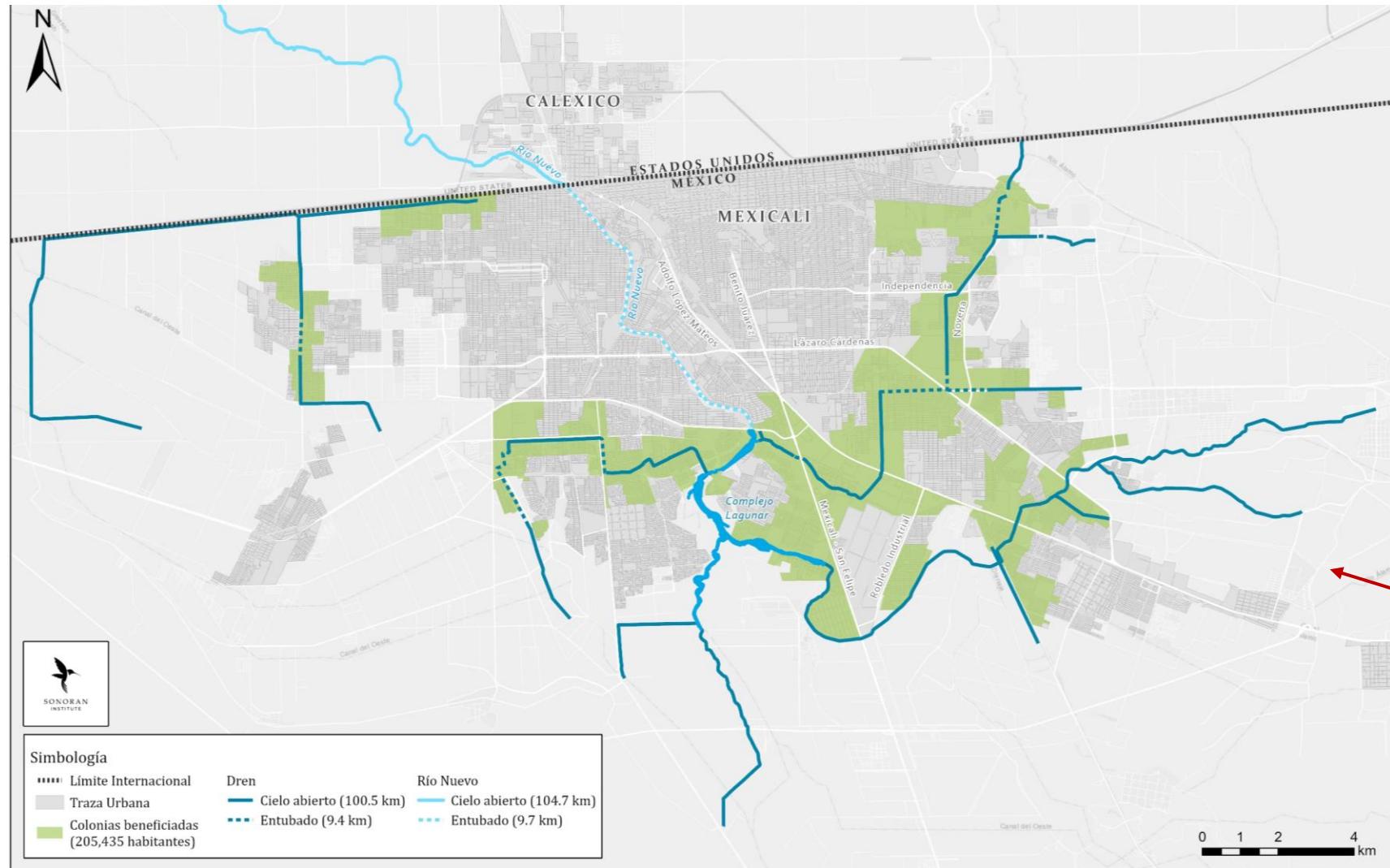


Pollution of air, water and soil is particularly exacerbated in areas along the river.

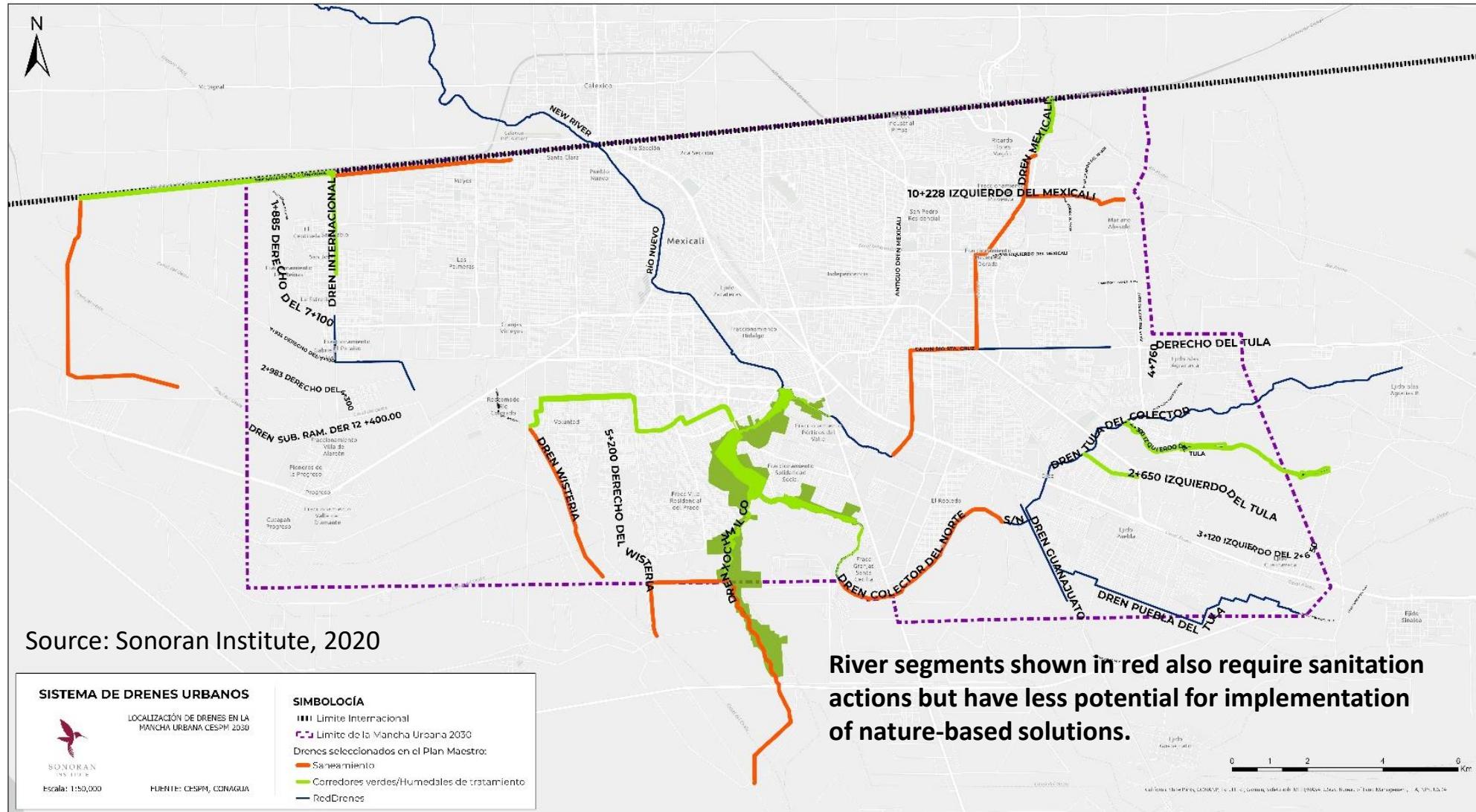


The New River basin

Water flows from tributaries into the Tres Lagunas and then to the U.S. and the Salton Sea.



Initial assessment of opportunities for nature-based solutions: River segments shown in green have the greater potential.



Vision

A new, New River

A network of urban wetlands and green corridors provides:

- ✓ cleaner water and air
- ✓ abundant green areas for recreation available to all
- ✓ opportunities to improve the quality of life and health of inhabitants
- ✓ an urban landscape that fosters economic investment



Project components:

(3 years project)

Demonstration site: demonstrate the benefits and costs of nature-based solutions to improve water quality of the New River and the urban landscape.

Master Plan: identify sites and develop concept designs to scale up nature-based solutions to provide benefits at a basin level under a common vision.



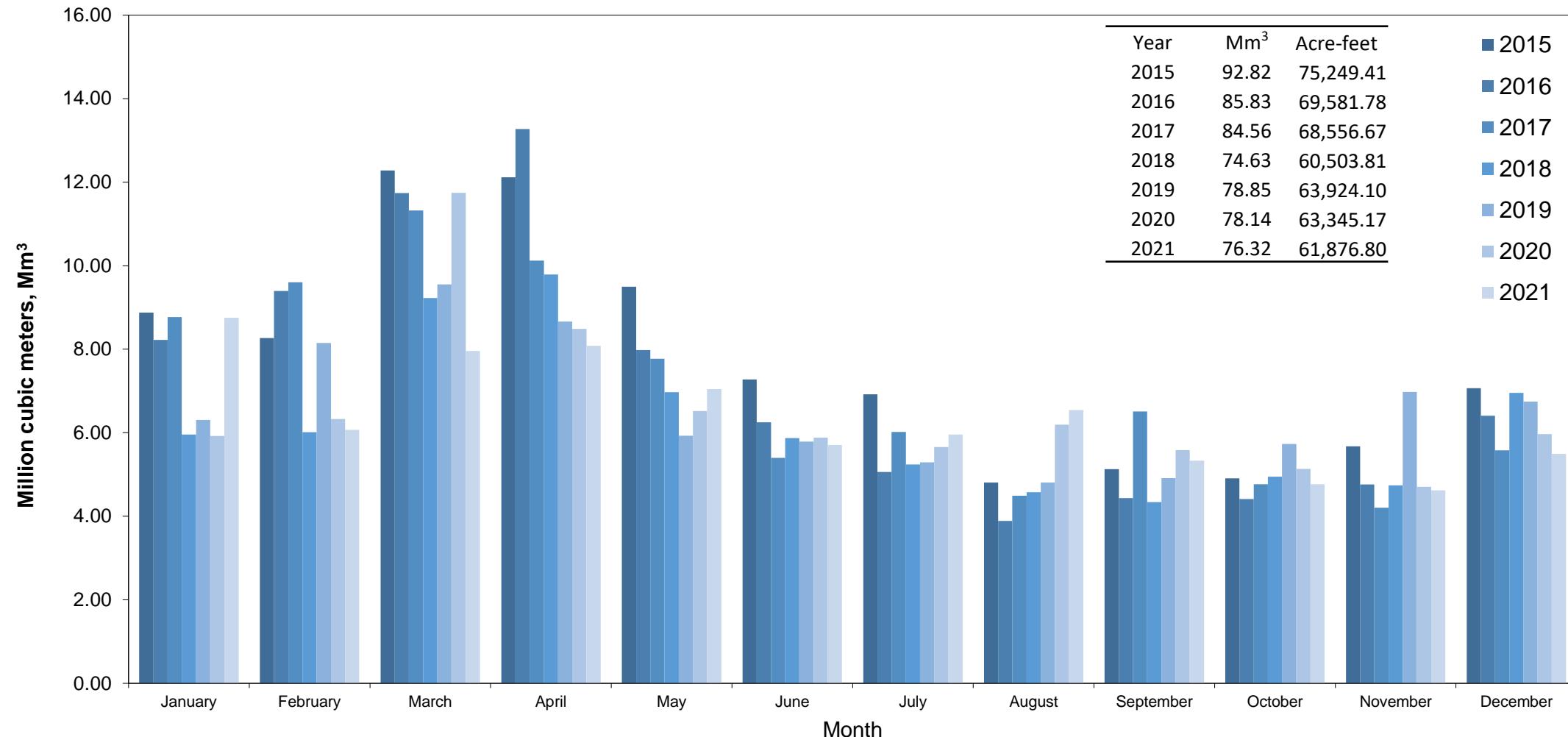
Demonstration site (3 river miles)



Project activities

1. **Enhance urban wetlands:** improve water quality and the environment
2. **Artificial treatment wetlands:** improve water quality and the environment
3. **Green corridors:** improve urban landscape, motivate citizens stewardship, maintain sites clean
4. **Hydrological, ecological and social monitoring:** define baseline conditions and project impacts
5. **Stakeholders outreach and involvement:** project sustainability

Monthly Volume Discharged at New River near the International Boundary at Calexico

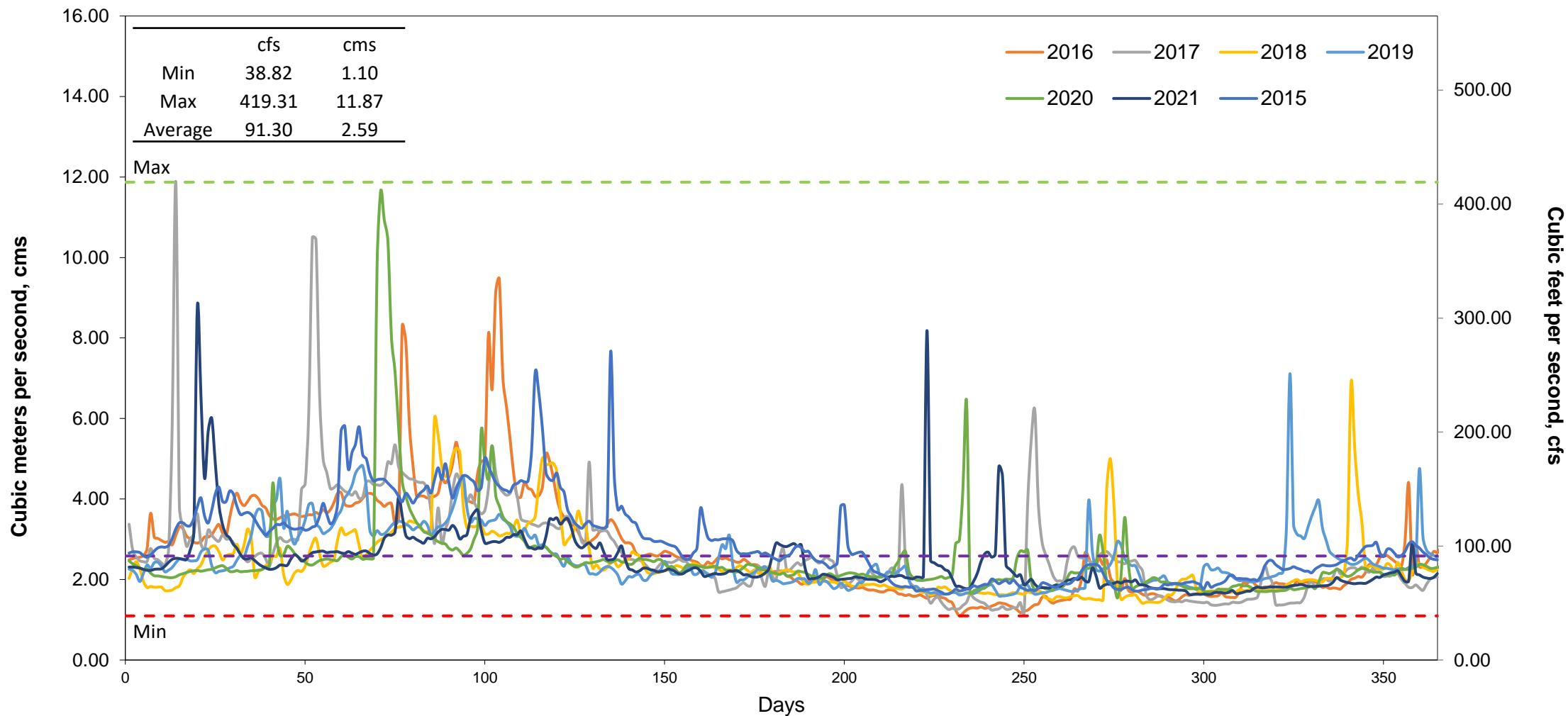


1 million cubic meters = 810.714 acre-feet

Data source: U.S Geological Survey



Mean Daily Discharge at New River near the International Boundary at Calexico



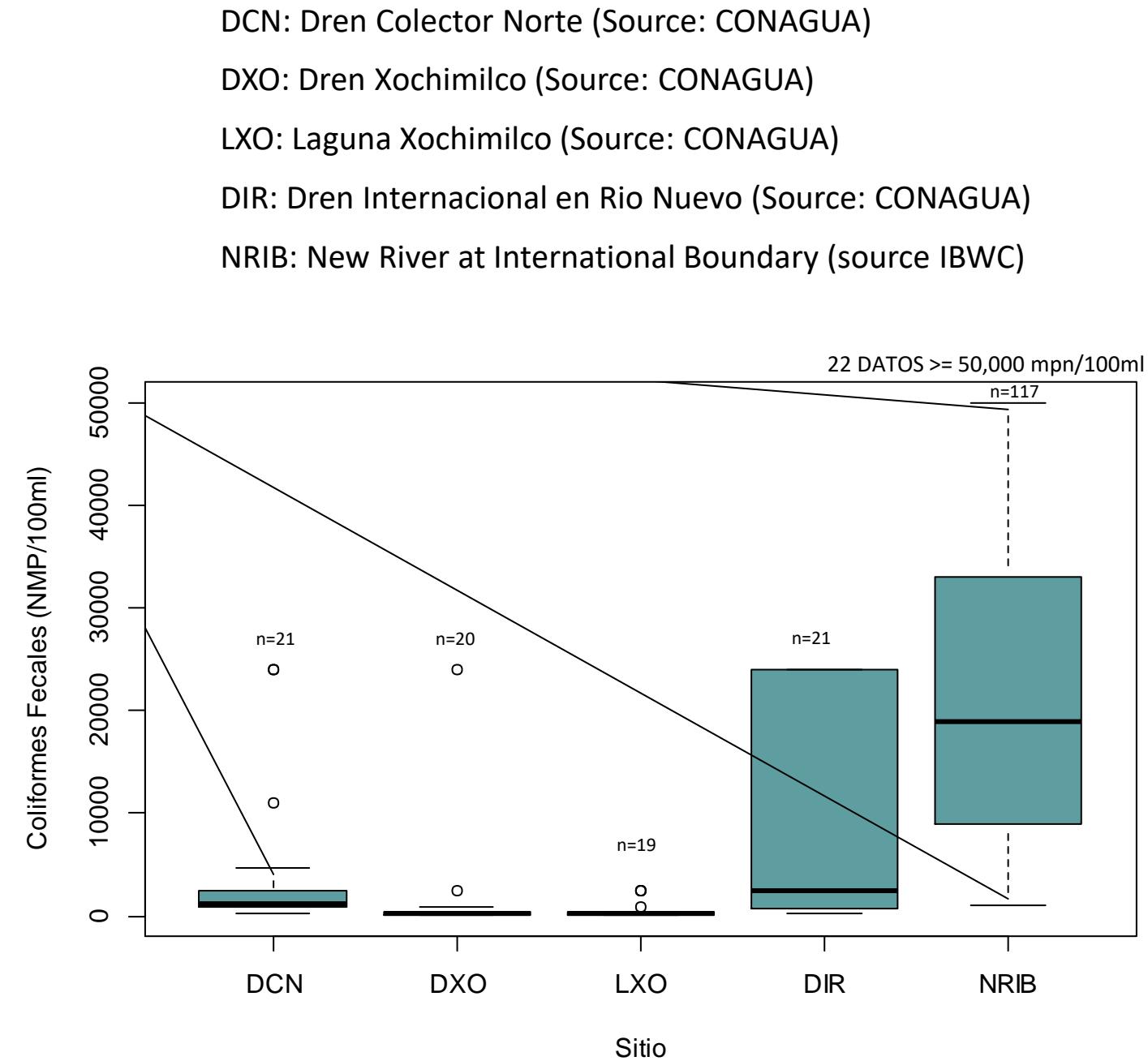
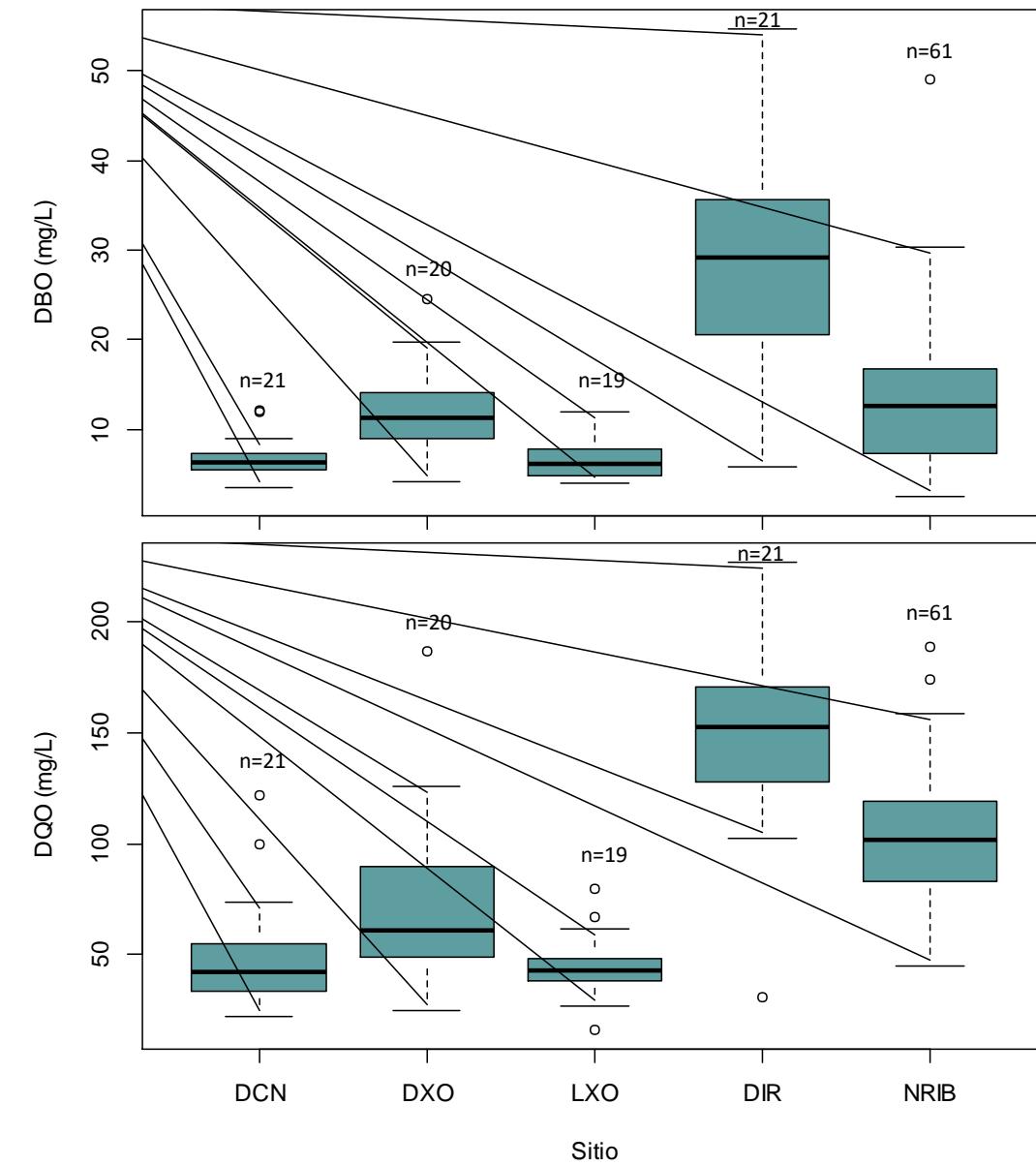
1 cms = 35.314 cfs

Data source: U.S Geological Survey

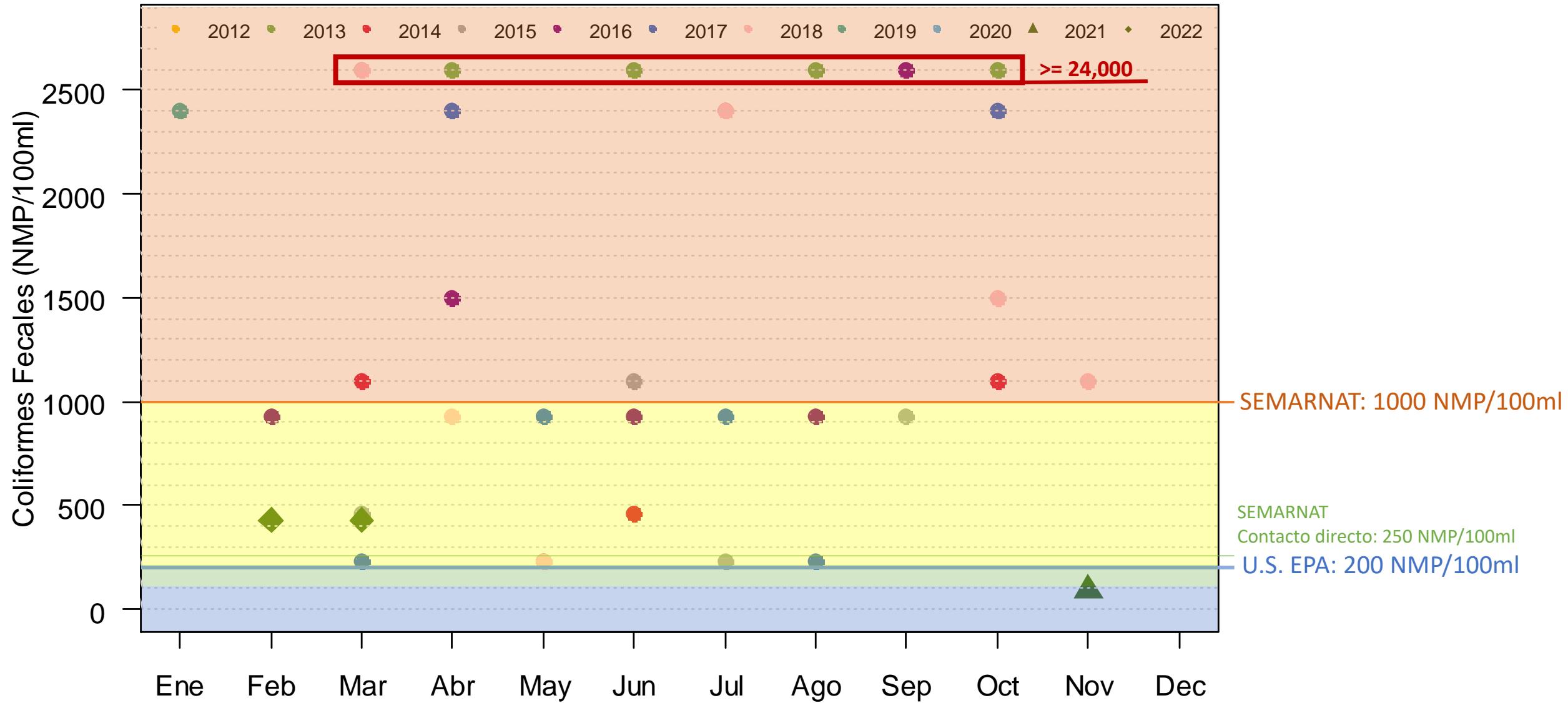
Sonoran Institute discharge
Measurements at Dren Colector
del Norte, Mexicali.

Date	Discharge	
	cms	cfs
3-23-2022	1.558	55.02
4-28-2022	1.514	53.47





Dren Colector del Norte

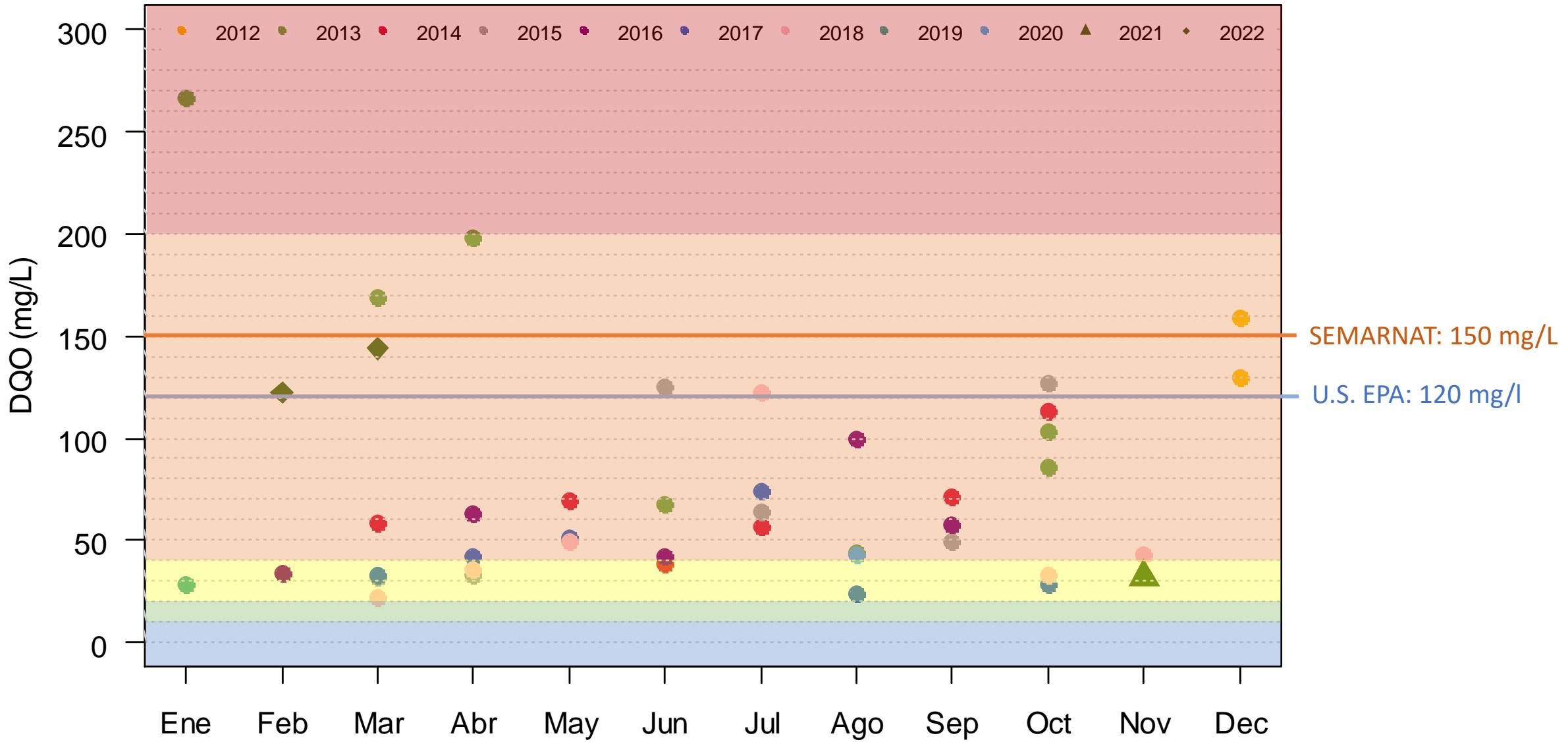


NOM-001-SEMARNAT-1996 LÍMITES MÁXIMOS PERMISIBLES DE CONTAMINANTES EN LAS DESCARGAS DE AGUAS RESIDUALES EN AGUAS Y BIENES NACIONALES

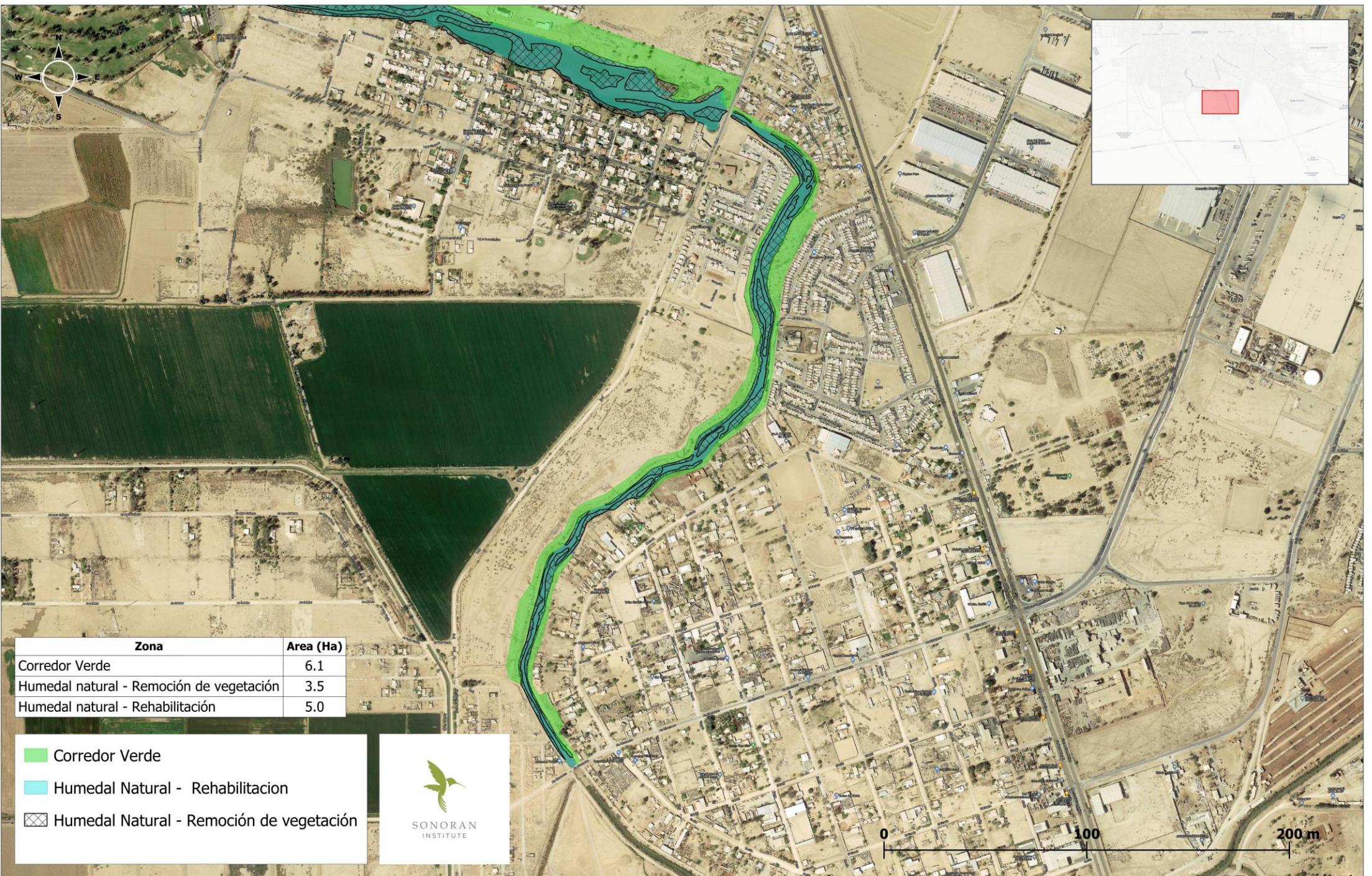
NOM-003-SEMARNAT-1996 LÍMITES MÁXIMOS PERMISIBLES DE CONTAMINANTES PARA LAS AGUAS RESIDUALES TRATADAS QUE SE REUSEN EN SERVICIOS AL PÚBLICO

U.S. EPA 1976. Quality Criteria for Water. U.S. Environmental Protection Agency

Dren Colector del Norte





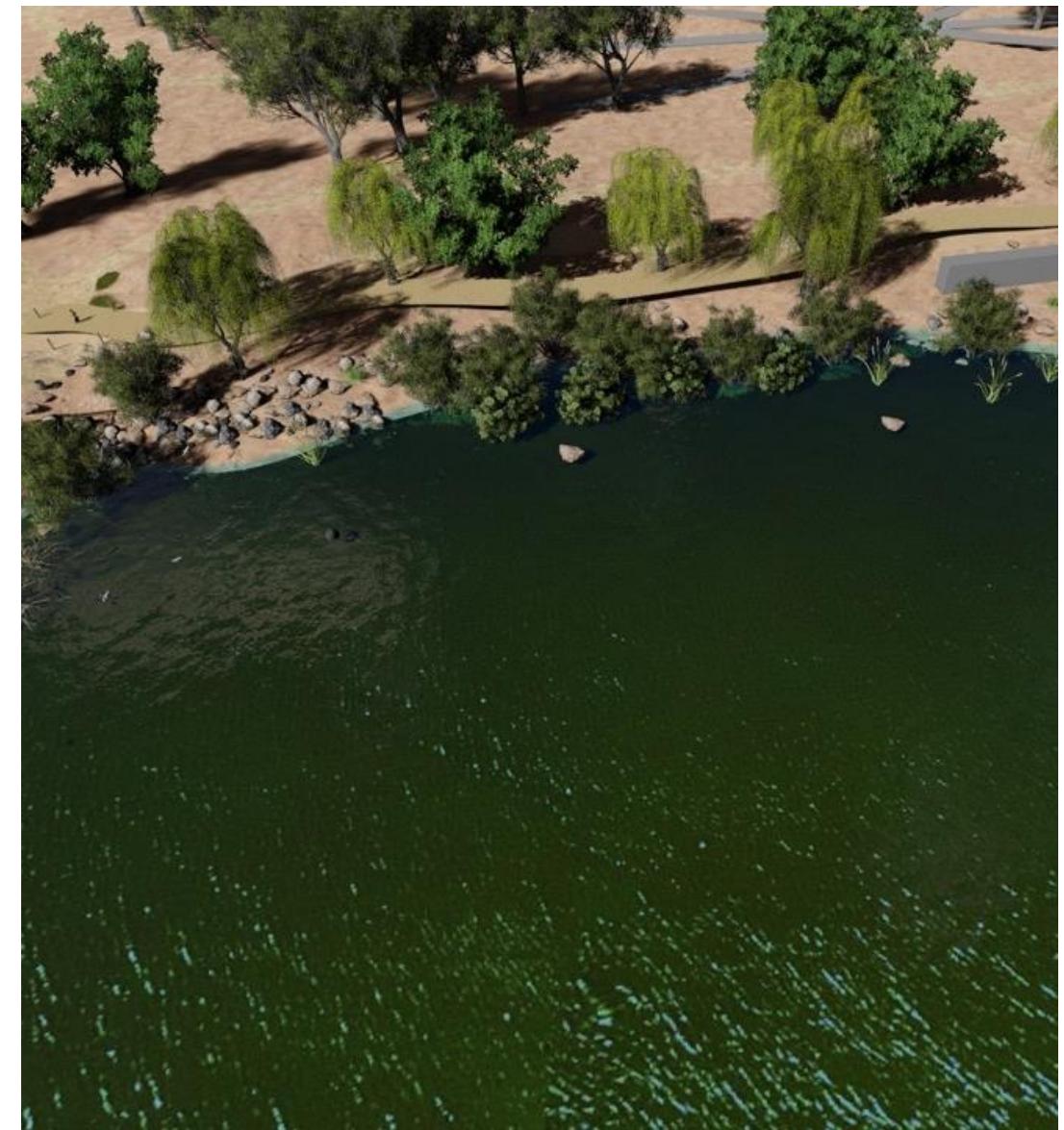




Condición actual del río
Nuevo en el sitio prototipo

Bird observation tower. The three levels allow for a better visual experience.





Green corridor with pedestrian bridge allowing people to be close to water and wildlife.



Rustic plaza and kiosk provide a space for social interactions by community members

Outputs (summary)

Year 1

- Water quality baseline and impact indicators
- Communications and outreach campaigns to local communities and institutions
- Removal of solid waste
- Conceptual design of natural and artificial wetlands
- Implementation of green corridors
- Permitting

Year 2

- Full design for natural and artificial wetlands
- Implementation of natural wetlands enhancement
- Implementation of green corridors
- Ongoing communications and outreach and public involvement
- Ongoing hydrological, ecological, and social monitoring
- Permitting

Year 3

- Full implementation of natural wetlands enhancement
- Implementation of artificial wetlands
- Full implementation of green corridors
- Development of Master Plan
- Secure stakeholder agreements for maintenance of the wetlands and green corridors
- Impact evaluation

Community Impact

Years 1 to 3

Approximately 7,500 people living along demonstration project area

Long term

205,435 inhabitants in residential areas along the 43 miles of drains.

Over 700,000 residents of Mexicali and Calexico would see the effects of cleaner water and green riparian areas.

